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EXAMINER	
AJIBADE AKONAI, OLUMIDE	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/767,806	BARCLAY ET AL.	
	Examiner	Art Unit	
	Olumide T. Ajibade-Akonai	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 7-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 7-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 16, 2006 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 7, 8, 11 and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Reichelt et al 6,295,447 (hereinafter Reichelt)** in view of **Pearson 20050100152**.

Regarding **claim 1**, Reichelt discloses an apparatus, comprising: a mobile

switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) that allows a mobile user of a mobile communication device (MS 225, see fig. 2, col. 4, line 60) to assign one or more members to a call waiting feature group (a subscriber specifies one or more calling party numbers CPNs to features such as call waiting service, see col. 10, lines 63-67, col. 11, lines 1-28) that is employable by the mobile switching center to provide a call waiting feature to the mobile user (the MSC can provide features such as call forwarding, call waiting, see col. 4, lines 44-53); wherein the mobile switching center gives preferred treatment to the one or more members of the feature group (CW on password or CPN, in which a person A calling the subscriber B may enter a password, and if the password is recognized, a call waiting indication is produced towards subscriber B, or restricting call waiting to a set of CPN, see col. 11, lines 6-17); wherein the preferred treatment comprises a call waiting indication (see col. 11, lines 6-17).

Reichelt fails to disclose wherein the call waiting feature comprises a preferred call waiting indication; wherein the mobile switching center communicates the default call waiting indication to the mobile user for an incoming call from a non-preferred user; and wherein the mobile switching center communicates the preferred call waiting indication to the mobile user for the incoming call from a preferred user, wherein the preferred user is a member of the call waiting feature group.

In the same field of endeavor, Pearson teaches wherein the call waiting feature comprises a preferred call waiting indication (normal call waiting tone 114, see fig. 1, p.1, [0009]); wherein the mobile switching center (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is

required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]) communicates the default call waiting indication to the mobile user (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]) for an incoming call from a non-preferred user (caller 120 dialing the home directly, see fig. 1, p.1, [0009]); and wherein the mobile switching center communicates the preferred call waiting indication (special call waiting tone 1, 116, see fig. 1, p. 1, [0009]) to the mobile user for the incoming call from a preferred user (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]), wherein the preferred user is a member of the call waiting feature group (caller 120 dialing the wireless number, see fig. 1, p.1, [0009]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Pearson with Reichelt for the benefit of relating distinctive ring and call waiting tones to identify different calls.

Regarding **claim 2**, as applied to claim 1, Reichelt further discloses wherein the call waiting feature group comprises a call waiting feature group (CW on calling party number, one or more calling party numbers CPN that are preferred callers, see col. 3, line 65, col. 11, lines 14-17) for the call waiting feature (call waiting, see col. 4, lines 44-47), wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) cooperates with the mobile communication device (MS 225, see fig. 2, col. 4, line 60) to

provide an interface to the mobile user that allows the user to assign the one or more members to the call waiting feature group for the call waiting feature (a subscriber specifies one or more subscribers or calling party numbers CPNs to features such as call waiting service, see col. 10, lines 63-67, col. 11, lines 1-17).

Regarding **claim 3**, as applied to claim 2, Reichelt further discloses wherein the interface comprises one or more of a voice interface, a dual tone multi frequency (DTMF) interface, a graphical interface, a keypad interface, and a touchpad interface (MSC/VLR 210, see fig. 2, col. 4, line 57).

Regarding **claim 4**, as applied to claim 1, Reichelt further discloses wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) makes a determination that a calling user is the preferred user or the non-preferred user (MSC n provide call waiting feature based on the user specified conditions, see col. 4, lines 44-53, col. 6, lines 56- 63, col. 11, lines 6-14), and wherein the mobile switching center provides the call waiting feature to the mobile user based on the determination that the calling user is the preferred user or the non-preferred user (MSC provides call waiting feature based on the user specified conditions such as the calling party number CPN, see col. 4, lines 44-53, col. 6, lines 56- 63, col. 11, lines 6-14).

Regarding **claim 5**, as applied to claim 4, Reichelt further discloses wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) queries a subscriber database (HLR 250 which includes a subscription information 235, see fig. 2, col. 4, line 57) to make the determination that the calling user is the preferred user or the non-preferred user (MSC provides call waiting feature based on the user specified

conditions such as the calling party number CPN, see col. 4, lines 44-53, col. 6, lines 56- 63, col. 11, lines 6-14).

Regarding **claim 7**, as applied to claim 6, Reichelt further discloses wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) makes a determination that a calling user of the incoming call is the non-preferred or preferred user (see col. 11, lines 6-17).

Regarding **claim 8**, as applied to claim 7, Reichelt further discloses wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) employs a calling party number (calling party numbers CPN, see col. 3, line 65) of the calling user to make the determination that the calling user of the incoming call is the non-preferred user (see col. 11, lines 6-17).

Regarding **claim 11**, as applied to claim 10, Reichelt further discloses wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) cooperates with the mobile communication device to provide (MS 225, see fig. 2, col. 4, line 60) an interface (see fig. 2, a dialogue between the MS 225 and the Unstructured supplementary data service data is setup so that the MS 225 can manage various conditions for the features, see fig. 2, col. 6-34).

Reichelt fails to disclose the user assigns the first indication and the second indication.

Pearson, however, further discloses wherein the user assigns the first indication and the second indication (see fig. 1, p.1, [0009]).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Reichelt and Pearson for the benefit of relating distinctive ring and call waiting tones to identify different calls.

Regarding **claims 14 and 19**, Reichelt et al discloses a method and an article comprising one or more computer-readable signal bearing media with means for performing the steps of: Identifying a calling user (calling party number, see col. 4, line 38, col. 7, lines 47-51) as one of one or more members of a user-defined feature group for a call waiting feature (Call waiting on calling party number CPN, see col. 11, lines 14-17).

Reichelt fails to disclose wherein the call waiting feature comprises a default call waiting indication and a preferred call waiting indication, communicating the default call waiting indication to the mobile user if the calling user is a no-preferred user; communicating the preferred call waiting indication to the mobile user if the calling user is a preferred user (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]).

In the same field of endeavor, Pearson teaches wherein the call waiting feature comprises a default call waiting indication (normal call waiting tone 114, see fig. 1, p.1, [0009]) and a preferred call waiting indication (special call waiting tone 1, 116, see fig. 1, p. 1, [0009]), communicating the default call waiting indication to the mobile user if the calling user is a non-preferred user (caller 120 dialing the home directly, see fig. 1, p.1, [0009]); communicating the preferred call waiting indication to the mobile user

if the calling user is a preferred user (caller 120 dialing the wireless number, see fig. 1, p.1, [0009]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Pearson with Reichelt for the benefit of relating distinctive ring and call waiting tones to identify different calls.

Regarding **claims 15 and 20**, as applied to claims 14 and 19, Reichelt et al further discloses wherein the step of identifying the calling user of the incoming call to the mobile user as one of the one or more members of the user-defined feature group for the call waiting feature comprises the steps of: receiving the incoming call from the calling user for a mobile communication device of the mobile user (see col. 11, lines 6-17), making a determination that the calling user of the incoming call is the preferred or the non-preferred user (CW based on called party number, in which a set of numbers are defined as preferred callers, and when a call is made to the mobile user, the call waiting indication is activated for the preferred callers, indicating that a query is made to determine if an incoming call is from a preferred user/caller, see col. 11, lines 14-28).

Regarding **claim 16**, as applied to claim 15, Reichelt et al further discloses wherein the step of making the determination that the calling user of the incoming call is the preferred or the non-preferred user comprises the steps of: querying a subscriber database (HLR 250 which includes a subscription information 235, see fig. 2, col. 4, line 57) for the user-defined feature group (preferred callers, see col. 11, line 14), comparing an identifier (calling party numbers CPN, see col. 3, line 65) of the calling user with the user-defined feature group to determine if the user-defined feature group comprises the

identifier (MSC/VLR evaluates a logical expression to determine a conditioned feature is specified by the listing of conditions in the HLR, see col. 6, lines 49-67, col. 7, lines 1-7, lines 38-51, col. 8, lines 60-67, and col. 9, lines 1-3).

Regarding **claim 17**, as applied to claim 15, Reichelt further discloses further comprising the steps of: receiving one or more inputs (calling party numbers CPN, see col. 3, line 65) from the mobile user of the communication device to assign the one or more members to the user-defined feature group (a subscriber specifies conditions such as one or more calling party numbers CPNs to features such as supplementary services SSs, see col. 3, lines 54-67, col. 4, lines 1-2, 38-43), storing the user-defined feature group in the subscriber database (the conditions are stored at the HLR 250 which includes a subscription information 235, see fig. 2, col. 4, line 67, col. 5, lines 1-5).

Regarding **claim 18**, as applied to claim 17, Reichelt further discloses comprising the steps of: obtaining one or more inputs from the mobile user to assign one or more call waiting indications to the call waiting feature (the MSC can provide features such as call waiting, based on the user specified conditions such as a password or calling party number, see col. 4, lines 44-53, col. 10, lines 52-67, col. 11, lines 1-13), communicating the one or more call waiting indications based on the determination that the calling user of the incoming call is the non-preferred user or the preferred user (see col. 11, lines 6-17).

Regarding **claim 21**, as applied to claim 14, Reichelt et al further discloses wherein the step of performing the call waiting feature on the incoming call from the calling user comprises the steps of: receiving an incoming call at a mobile switching

center, wherein the call is for mobile communication for a mobile communication device on a pre-existing call (see col. 6, lines 28-37, 56-63), querying the subscriber database for a call waiting feature group (see col. 6, lines 56-63), determining that the calling user is a member of the call waiting feature group (preferred callers, see col. 11, lines 14-17), communicating a preferred call waiting indication to the calling user (see col. 11, lines 14-17), placing the call on hold (inherent, since the call is interrupted by the preferred using, and it is well known that during call waiting, the call with lower priority is put on hold, see col. 11, line 14-17), connecting the incoming call with the mobile communication device (see col. 11, lines 14-17), and disconnecting the incoming call and reconnecting the pre-existing call to the mobile communication device (inherent, since it is well known to reconnect a call on hold after the preferred call with the communication device is disconnected, see fig. 3, col. 11, lines 6-27).

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Reichelt et al 6,295,447 (hereinafter Reichelt)** in view of **Pearson 20050100152** as applied to claim 7 above, and further in view of **Valentine et al (6, 487, 209)**.

Regarding **claim 9**, as applied to claim 7, Reichelt, as modified by Pearson further discloses the claimed invention.

Reichelt further discloses wherein the mobile switching center employs the a number (calling party numbers CPN, see col. 3, line 65) from the calling user to make the determination that the calling user of the incoming call is the non-preferred user or the preferred user (preferred callers, see col. 11, lines 6-14).

Reichelt, as modified by Pearson however, do not expressly disclose wherein the mobile switching center receives a DTMF digit pattern from the calling user.

In the same field of endeavor, Valentine et al teaches wherein the mobile switching center (MSC 230, see fig. 2, col. 3, line 52) receives a DTMF digit pattern (DTMF message, see col. 4, line 12) from the calling user (MS 220 sends a DTMF message to MSC 230, see col. 3, lines 7-13).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Valentine et al with Reichelt and Pearson for the purpose of transferring DTMF tones through an IP based GSM network.

7. Claims 10, 12 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Reichelt et al 6,295,447 (hereinafter Reichelt)** in view of **Pearson 20050100152** as applied to claim 7 above, and further in view of well known prior art (**MPEP 2144.03**).

Regarding **claim 10**, as applied to claim 7, Reichelt further discloses wherein the call waiting feature comprises a default call waiting period (normal call waiting tone 114, see fig. 1, p.1, [0009]), wherein the preferred treatment comprises a preferred call waiting period (special call waiting tone 1, 116, see fig. 1, p. 1, [0009]); wherein the mobile switching center (MSC/VLR 210, see fig. 2, col. 4, line 57) communicates the preferred call waiting indication to the mobile user over the preferred call waiting period if the calling user is the preferred user (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]), wherein the mobile switching center communicates a second indication (118, see p.1,

[0009]) to the user of the mobile communication device if the calling user is not one of the one or more members assigned to the feature group (inherent, since the system described is also applicable to wireless carriers, thereby indicating that an MSC is required to communicate the call waiting tones to a wireless phone, see fig. 1, p.1, [0009], [0019]).

Reichelt, as modified by Pearson does not explicitly disclose wherein the preferred treatment comprises a preferred call waiting period that is longer than the default call waiting period. However, the examiner takes official notice of the fact that it is well known in the art to have longer call waiting periods for a preferred user than for a non-preferred user.

As a note, one of ordinary skill in the art would clearly recognize that having the call waiting period of a preferred user to be longer than the default call waiting period of a non-preferred call is common knowledge. For, example longer call waiting period can be assigned to a preferred user based on the priority, such as the preferred user being an emergency user with an emergency number.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reichelt and Pearson by specifically having a longer call waiting period for the preferred user than the default call waiting period of the non-preferred user.

Regarding **claim 12**, as applied to claim 10, Reichelt, as modified by Pearson does not explicitly disclose wherein the mobile switching center increases a duration of the preferred call waiting indication based on the determination that the calling user of

the incoming call the non-preferred or the preferred user. However, the examiner takes official notice of the fact that it is well known in the art to have a longer call waiting duration for a preferred user than for a non-preferred user.

As a note, one of ordinary skill in the art would clearly recognize that increasing the call waiting period of a preferred to be longer than the default call waiting period of a non-preferred call at the mobile switching center is common knowledge. For, example longer call waiting period can be assigned to a preferred user based on the priority, such as the preferred user being an emergency user with an emergency number.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reichelt and Pearson by specifically having the mobile switching center increase the call waiting period for the preferred based on determining that the incoming call is from a preferred user.

Regarding **claim 13**, as applied to claim 12, Reichelt does not explicitly disclose wherein the mobile switching center cooperates with the mobile communication device to provide an interface to the mobile user that allows the mobile user to input a selected duration, wherein the mobile switching center increases the duration of the indication by the selected duration. However, the examiner takes official notice of the fact that it is well known in the art to use the mobile terminal to communicate with the mobile switching center to increase the call waiting time.

As a note, one of ordinary skill in the art would clearly recognize that increasing the call waiting period of a preferred user to be longer than the default call

waiting period of a non-preferred call at the mobile switching center is common knowledge. For, example longer call waiting period can be assigned to a preferred user based on the priority, such as the preferred user being an emergency user with an emergency number.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reichelt and Pearson by specifically having the mobile user communicate with the mobile switching center to increase the call waiting period for the preferred based on determining that the incoming call is from a preferred user.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smith et al (6, 389, 287) discloses a method for prioritizing a communication in a wireless communication system.

Gurgun (20020141559) discloses a method, apparatus, and system for selective call waiting.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER